Clarke®

IMPACT WRENCH

MODEL NO: CAT79

PART NO: 3110795

OPERATING & MAINTENANCE INSTRUCTIONS

GC0713

INTRODUCTION

Thank you for purchasing this CLARKE Impact Wrench.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

IMPORTANT

Please read all of the safety and operating instructions carefully before using this product. Please pay particular attention to all sections of these instructions that display warning symbols and notices.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

GENERAL SAFETY RULES

CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND/OR DAMAGE TO PROPERTY.

WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. Dress appropriately - Do not wear loose clothing or jewellery. Tie long hair out of the way.
3. Keep children and visitors away - Do not let children handle the impact wrench.
4. Do not operate the impact wrench where there are flammable liquids or gases.
5. Keep the air supply hose away from heat, oil and sharp edges.
6. Do not fit the impact wrench to any stand or clamping device that may damage the wrench.

USE

1. Stay alert and use common sense - do not operate the impact wrench when you are tired or under the influence of alcohol, drugs or medication.
2. Always wear eye protectors when using the impact wrench - Eye protectors must provide protection from flying particles from the front and the side.
3. Always wear ear protectors when using the impact wrench .
4. Do not overreach - Keep proper footing and balance at all times.
5. Never use any type of bottled gas as a source of power for the impact wrench.
6. Do not connect the air supply hose with your finger on the trigger of the impact wrench.
7. Do not exceed the maximum pressure for the impact wrench: 90 psi / 6.2 bar.
8. Check hoses for leaks or worn condition before use, and ensure that all connections are secure.
9. Do not use the impact wrench for any other purpose than that described in this manual.

10. Do not carry out any alterations or modifications to the impact wrench.
11. Always disconnect from the air supply when:
    - Performing any maintenance
    - The impact wrench is not in use.
    - The impact wrench will be left unattended.
    - Moving to another work area.
    - Passing the impact wrench to another person.
12. Never use the impact wrench if it is defective or operating abnormally.
13. The impact wrench should be serviced at regular intervals by qualified service personnel.
14. Avoid damaging the impact wrench for example by applying excessive force of any kind.
15. ALWAYS maintain the tool with care. Keep it clean for the best and safest performance.
16. Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
17. DO NOT force or misuse the tool. It will do a better and safer job at the rate for which it was designed.
18. Do not remove any labels. Damaged labels should be replaced.
19. This tool vibrates with use. Vibration may be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs. Seek medical advice before resuming use.
20. NEVER use standard sockets. These may shatter with serious consequences. Use ONLY impact sockets.

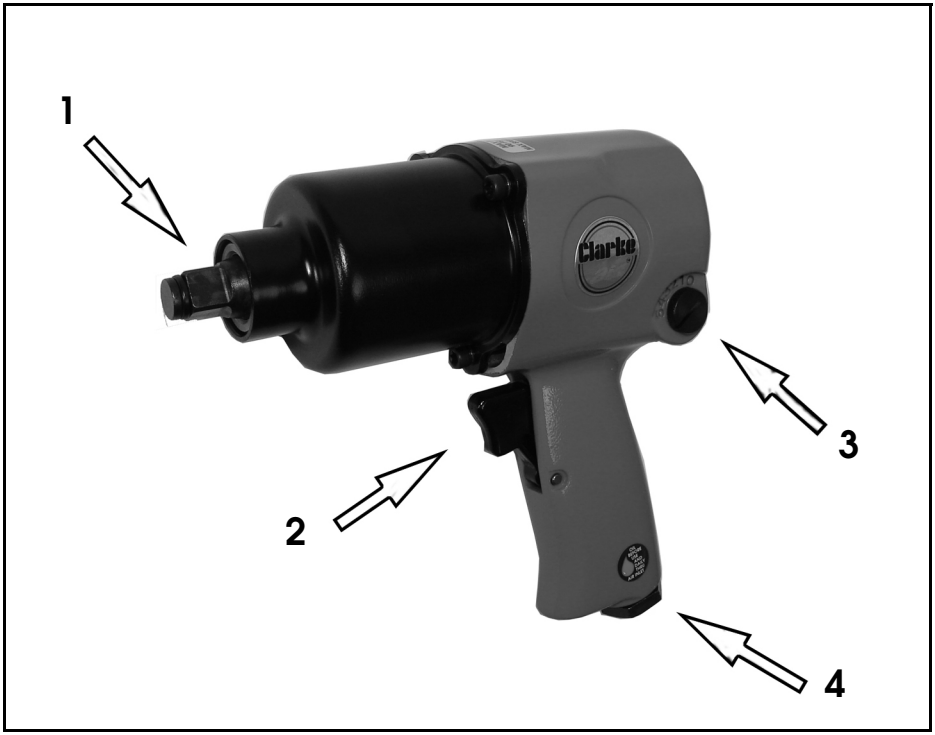
TRANSPORTATION

1. Never carry the impact wrench by the air supply hose.
2. Never carry the impact wrench with your finger on the trigger.

STORAGE

1. When not in use the impact wrench must be disconnected from the air supply and stored in a dry place out of the reach of children (preferably in a locked cabinet).
2. Avoid storing the impact wrench in environments where the temperature is below 0^{O}C.

OVERVIEW



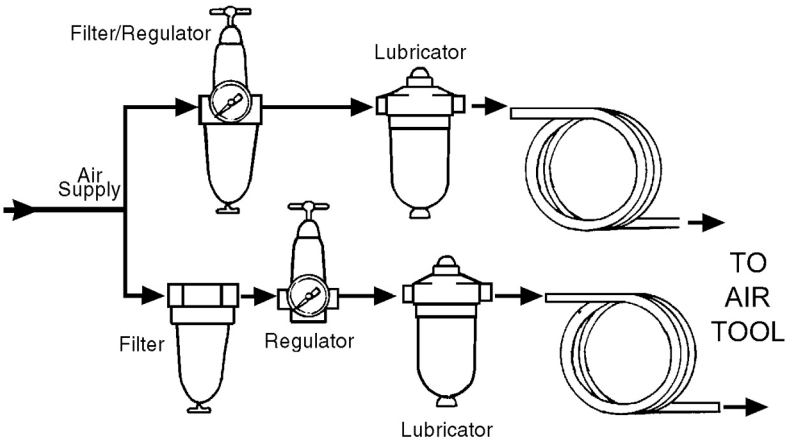
NO	DESCRIPTION	NO	DESCRIPTION
1	Anvil	3	Combined Direction/Speed Control
2	Trigger	4	1/4" BSP (Female Air Inlet)

THE COMPRESSED AIR SUPPLY

AIR SUPPLY REQUIREMENTS

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors used with the impact wrench must comply with the appropriate European Community Safety Directives.
- A build-up of moisture or oil in the air compressor will accelerate wear and corrosion in the impact wrench. ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.
- If an unusually long air hose is required,(over 8 metres), the line pressure or the hose inside diameter may need to be increased. The minimum hose diameter should be 5/16"(8mm) ID and fittings should have the same internal dimensions.
- Never exceed the maximum operating pressure for the wrench. It is recommended that air pressure to this tool does not exceed 90 psi at the tool when running. Higher pressures and unclean air will shorten the life of the tool due to faster wear and is a possible safety hazard.
- The air hose must must be rated at least 150% of the maximum operating pressure of the tool.



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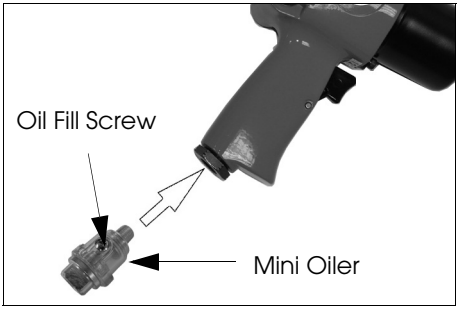
- A typical air line layout is shown above. If an automatic in-line filter/ regulator is used,it will keep the tool in good condition, but should be regularly checked and topped up with oil. SAE 10 oil should be used, and the lubricator adjusted to approx 2 drops per minute.

BEFORE USE

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SUPPLY.

NOTE: Ensure the compressor is turned off.

1. If required, connect an in-line mini oiler to the tool.
   - A mini oiler helps to prolong the life of the impact wrench. Remove the oil fill screw from the side of the mini oiler and fill with Air-line Oil available from your CLARKE dealer. Replace the screw before using the wrench.



2. If a mini-oiler is not being used, run a few drops of oil through the tool before use. It can be entered through the inlet strainer or via the hose at the nearest connection to the air supply.
3. Connect a suitable hose as shown.
4. Connect the other end of the hose to the compressor.
5. Your impact wrench is now ready for use.

You can fit a whip hose with a quick fit coupling if required (available from your Clarke dealer.)

USING THE FORWARD/REVERSE BUTTON

WARNING: WAIT UNTIL THE ANVIL HAS STOPPED ROTATING BEFORE OPERATING THE FORWARD/REVERSE BUTTON.

Forward/Reverse rotation is selected by pushing the combined Forward/ Reverse knob/power regulator in the direction shown by the arrow on the back of the wrench.

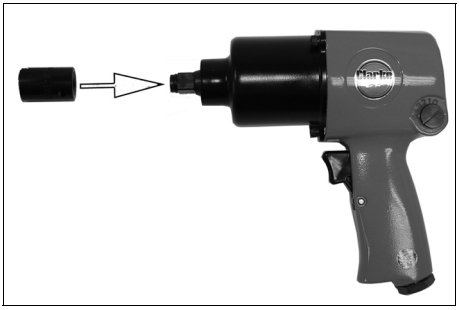
1. For normal tightening, the wrench should be operated in the forward (F) direction.
2. For loosening, the wrench should be operated in the reverse (R) direction.

FITTING THE IMPACT SOCKET

WARNING: NEVER USE STANDARD SOCKETS. THESE MAY SHATTER WITH SERIOUS CONSEQUENCES. ONLY USE IMPACT SOCKETS DESIGNED FOR USE WITH IMPACT TOOLS.

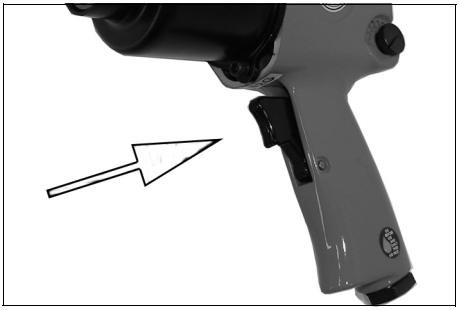
1. Select the impact socket you require, which must be in good condition and fit the tool exactly.

Push the socket onto the anvil as shown.



OPERATION

OPERATING THE IMPACT WRENCH



1. Locate the socket over the nut to be tightened or loosened.
2. Squeeze the trigger to start the wrench.
3. Release the trigger switch to stop the wrench.
    - The anvil will continue to rotate very briefly after the trigger has been released.

ADJUSTING THE POWER

1. To adjust the power, set the air regulator to one of the 5 settings available.(Setting 1-Low, 5 -High)

If you start by turning the regulator to its lowest setting and applying the wrench to a nut of known tightness (or torque setting), you can then gradually turn the regulator until the nut or bolt moves very slightly in the direction in which it was set. The wrench is now set to replicate that tightness. Note the setting for future use.

When critical torque values are not required, tighten the nut or bolt until secure, then turn a further quarter to a half turn, assuming no gaskets are being used between surfaces. For additional power on disassembly work, turn the regulator to its highest setting.

DISCONNECTING THE AIR SUPPLY

Do not disconnect the air supply hose until the compressor has been shut down and the compressed air released.

1. Refer to the compressor instruction manual for the procedure to shut down and release the compressed air.
2. Once the pressure has been released, disconnect the air supply hose from the impact wrench.

Store the wrench safely in its box in a dry, secure environment.

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MAINTENANCE

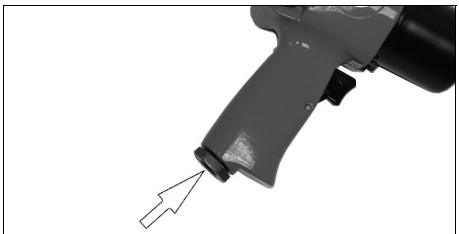
WARNING: MAKE SURE THAT THE IMPACT WRENCH IS DISCONNECTED FROM THE AIR SUPPLY BEFORE STARTING ANY CLEANING, OR MAINTENANCE PROCEDURES.

DAILY

- Before use, drain water from the air tank, air line and compressor.
- Pour a few drops of CLARKE airline oil, into the air inlet. This should be carried out regardless of whether or not an in-line mini oiler is used. If an inline mini oiler is not used, this procedure should be repeated after every two to three hours of use.

WEEKLY

- Check the air inlet screen filter for blockage and clean if necessary.



Inlet air screen filter inside inlet connector

MONTHLY (IF IN CONSTANT USE)

- Grease the clutch mechanism once a month if in constant use, by removing the hammer case (item 38) and applying 3/4oz (22ml) of good quality bearing grease. Ensure that the screws connecting the hammer case are tightly secured.

CLEANING

- Keep the body of the impact wrench clean and free from debris. Grit or gum deposits in the tool may reduce efficiency.

SERVICE AND REPAIR

If the tool runs erratically or becomes inefficient although the air supply is in good order, it may be necessary to dismantle the air motor and impacting clutch and replace any worn or damaged parts. Such servicing and repair work should be carried out by qualified service technicians.

PERFORMANCE

Please note that factors other than the tool may effect its operation and efficiency such as reduced compressor output, excessive drain on the airline

moisture or restrictions in the air-line, or the use of connectors of improper size or poor condition which will reduce air supply.

Grit or gum deposits inside the tool may also reduce its efficiency. This condition can be corrected by cleaning out the air strainer and flushing out the tool with gum solvent or oil, or failing this, the motor may require dismantling.

**Clarke Air Line Oil (part no. 3050825) is available from your CLARKE dealer.

STORAGE

If the tool is to be stored, or is idle for longer than 24 hours, run a few drops of Clarke air line oil into the air inlet, and run the tool for 5 seconds in order to lubricate the internal parts.

When not in use, disconnect from air supply, clean tool and store in a safe, dry place.

ACCESSORIES

A wide range of accessories is available including filter/regulators, lubricators, high-pressure hoses (5 to 50 metres) etc.

Contact your CLARKE dealer for further information or CLARKE International Service Department on 01992 565333.

TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under any load.	1. Excessive pressure on drill. 2. Motor parts worn. 3. Worn or sticking mechanism due to lack of lubricant.	1. Reduce the force applied to the drill. 2. Return to Clarke dealer for repair. 3. Drip air tool lubricating oil into air inlet. Allow oil to soak moving parts before using.
Tool runs slowly. Air flows weakly from exhaust.	1. Motor parts jammed with gum/dirt. 2. Regulator in closed position. 3. General airflow blocked by dirt.	1. Examine inlet air filter for cleanliness. 2. Adjust regulator to open position. 3. Operate tool in short bursts.
Tool will not run. Air flows freely from exhaust.	1. Motor vanes stuck due to buildup of foreign material.	1. Disconnect air supply and rotate tool assembly manually. 2. Try operating tool in short bursts. 3. Tap motor housing gently with a rubber mallet. 4. Drip a few drops of air tool lubricating oil into air inlet to soak moving parts.
Tool will not shut off.	1. Throttle O-rings damaged or ill-fitting in seat.	1. Return to Clarke dealer for repair.

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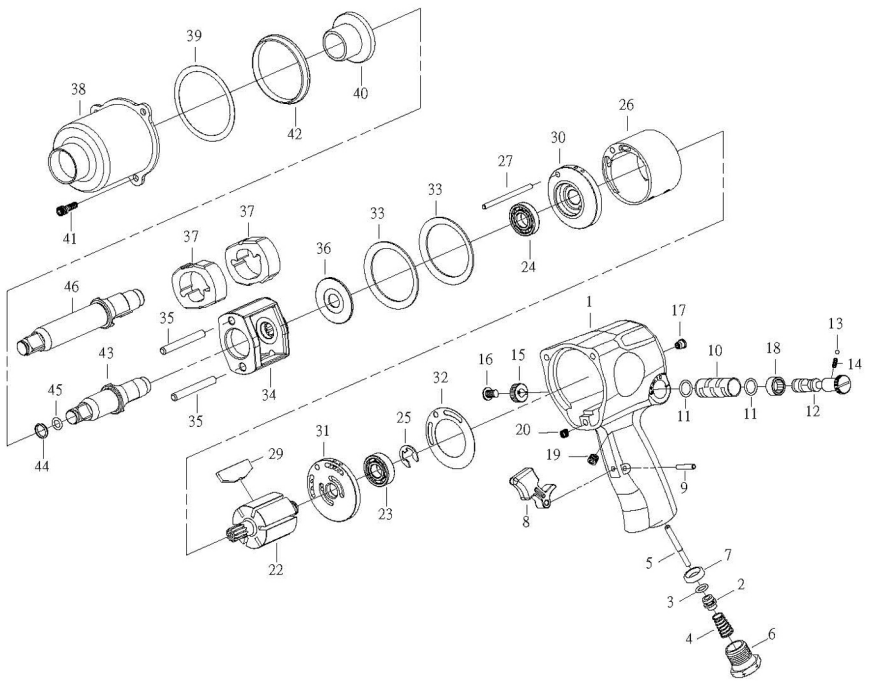
PARTS LIST & DIAGRAM



No	Description
1	Housing Assy (inc 7,10,17,18,19,20)
2	Throttle Valve
3	O-Ring
4	Throttle Valve Spring
5	Throttle Valve Plunger
6	Air Inlet
7	Throttle Valve Seat
8	Trigger
9	Trigger Pin
10	Reverse Valve Bush
11	O-Ring
12	Reverse Valve

No	Description
24	Ball Bearing
25	Retainer
26	Cylinder
27	Cylinder Dowel
28	Not Used
29	Rotor Blade
30	Front End Plate
31	Rear End Plate
32	Gasket
33	Motor Clamp Washer
34	Hammer Frame
35	Hammer Pin

No	Description	No	Description
13	Reverse Valve Steel Ball	36	Washer
14	Reverse Valve Spring	37	Hammer
15	Reverse Valve Knob	38	Hammer Case
16	Reverse Valve Knob Screw	39	Gasket
17	Grease Fitting	40	Bushing
18	Reverse Valve Bushing Gear	41	Screw
19	Set Screw	42	Separator
20	Heli-coil	43	Standard Anvil
21	Not Used	44	Socket Retainer
22	Rotor	45	O-Ring
23	Ball Bearing	46	2" Extended Anvil
TK	Tune-up Kit (includes 3,4,11,13,14,23,24, 25,29,32,39,44 & 45)		

SPECIFICATIONS

Model Number	CAT79
Part Number	3110795
Anvil Size	1/2" (13mm)
Maximum Torque	600 ft/lb
Operating Pressure	90 psi (6.2 bar)
Air Consumption	4.2 cfm
No Load Speed	8000 rpm @ 90psi
Air Inlet Size	1/4" BSP
Sound Pressure Level (LpA dB)	97 dB(A)
Sound Power Level (LwA dB)	108 dB(A)
Vibration Levels	6.74 m/s^2 at the Main Handle
Weight	2.56 kg

Please note that the details and specifications contained herein are correct at the time of going to print. However CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate**.**

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DECLARATION OF CONFORMITY

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INTERNATIONAL

This is an important document and should be retained

DECLARATION OF CONFORMITY

We declare that this product complies with the following standards/directives:

- **89/392/EEC**
- **EN 292-2**
- **EN 60 335 - 1**
- **EN 292-2**

Description: **Air tool range**

Model No: **CAT79**

Serial (Batch) No: **See Product Data Label**

Signed: _____

Clarke® INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG

DOC No. HO75/27

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A SELECTION FROM THE VAST RANGE OF

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